

PATENT ABSTRACTS OF JAPAN

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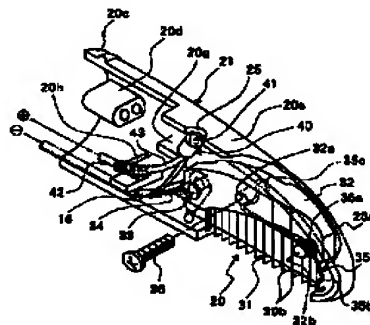
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(54) BODY HAIR CUTTING TREATMENT DEVICE

(57)Abstract:

PROBLEM TO BE SOLVED: To reduce component members, constantly provide tension to a heater wire, facilitate installation of the heater wire, and secure energization to the heater wire.

SOLUTION: A body hair cutting treatment device is provided with a comb tooth part 20 having comb tooth plates 21 (22), and a heater wire 31 disposed between the comb tooth plates 21 to burn and cut hair which has been combed and inserted between comb teeth getting in contact with it. In this case, a heater wire unit is composed of a first electrode piece 34 to which one end of the heater wire 31 is fastened, a second electrode piece 35 to which the other end of the heater wire 31 is fastened, and which has such elasticity as to provided tension to the heater wire 31, and a holding body 32 on which the first and the second electrode pieces 34, 35 are installed, and in which a connection end part of the second electrode piece 35 is disposed around a circumferential edge of an installation hole 32a. An installation screw 36 through the installation hole 32a in the heater wire unit is installed on the comb tooth part 20, so the first and the second electrode members 34, 35 are securely connected to a feed electrode terminal.



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CLAIMS

[Claim(s)]

[Claim 1]A ctenidium part which has a ctenidium board of a couple which sets an interval and confronts each other.

A heater wire which it is allocated between ctenidium boards of the above-mentioned ctenidium part, and contacts ***** hair and is burned off between ctenidiums.

Are the hair cutting treatment device provided with the above, and bind the 1st electrode piece that binds one end of the above-mentioned heater wire, and the other end of the above-mentioned heater wire, and. Equip this heater wire with the 2nd electrode piece that has the elasticity which energizes tension, and the 1st and 2nd electrode pieces of the above, and. A heater wire unit which consists of a supporter which allocates a connecting end section of the 2nd electrode piece of the above near the periphery of a mounting hole is provided, With a mounting screw which penetrates a mounting hole of the above-mentioned heater wire unit, this heater wire unit is formed in the above-mentioned ctenidium part so that attachment is possible, and the 1st and 2nd electrode pieces of the above are formed so that connection with an electrode terminal for electric supply is possible.

[Claim 2]A hair cutting treatment device possessing a ctenidium part which has a ctenidium board of a couple characterized by comprising the following which sets an interval and confronts each other, and a heater wire which it is allocated between ctenidium boards of the above-mentioned ctenidium part, and contacts ***** hair and is burned off between ctenidiums.

The 1st electrode piece that binds an end of the above-mentioned heater wire.

The 2nd electrode piece that the other end of the above-mentioned heater wire is bound, and has the elasticity which energizes tension to this heater wire.

A heater wire unit which it equips with the 1st and 2nd electrode pieces of the above, and consists of a supporter which allocates a connecting end section of the 2nd electrode piece of the above near the periphery of a mounting hole.

A light-emitting display means which consists of a light emitting device which emits light by energization of the above-mentioned heater wire, and an element for a display [exhausting] which is connected to an electric circuit of this light emitting device in series, and controls voltage to a light emitting device.

[Claim 3]A piece of a switch with which the above-mentioned ctenidium part is equipped collapsibly and which energizes - intercepts the above-mentioned heater wire in the hair cutting treatment device according to claim 1 or 2, A hair cutting treatment device which possesses a wrap cap for the above-mentioned ctenidium part, provides an opening which carries out the insertion guide of the above-mentioned piece of a switch to the above-mentioned cap, provides a notch for malfunction prevention which leaves an apical surface center section of the above-mentioned piece of a switch, and engages with a verge-of-opening part of the above-mentioned cap at both sides, and is characterized by things.

[Translation done.]

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DETAILED DESCRIPTION

[Detailed Description of the Invention]

[0001]

[Field of the Invention]This invention relates to a hair cutting treatment device, is allocated between the ctenidium boards of the ctenidium part which, more particularly, has a ctenidium board of a couple which sets an interval and confronts each other, and a ctenidium part, and relates to the hair cutting treatment device possessing the heater wire which contacts ***** hair and is burned off between ctenidiums.

[0002]

[Description of the Prior Art]Generally this kind of hair cutting treatment device is used as an object for processing of useless hair, for example before wear of a high leg cut swimming suit and a leotard. As this kind of a hair cutting treatment device, the thing of the description is known by JP,H4- 37521,Y or JP,H8- 28981 4,A, for example.

Among these, between the conducting terminals which protruded on the both ends of an abbreviated bow type base, art given in ** JP,H4- 37521,Y forms the heater cassette which stretches a heater wire so that extraction and insertion on the main part of a treater is possible. Art given in ** JP,H8- 28981 4,A, Enable attachment and detachment of a ctenidium part to a head, and a head is formed to a handle part, enabling free attachment and detachment, A hauling means to always give hauling power to the heater wire of a heater cartridge in the state where the main part of a hair treater or the head was equipped with the heater cartridge which stretches a heater wire between electrode members is provided.

[0003]If according to the hair cutting treatment device constituted as mentioned above ON operation of the switch is carried out where the heater wire between ***** ctenidium boards is contacted into the suitable length portion of hair by hair in a ctenidium part, A heater wire energizes, it generates heat and the hair portion in contact with this heater wire can be burned off easily. Unlike the case where edged tools, such as scissors and a razor, cut, the hair ends of the burned- off hair do not become acute, but it becomes that roundish, and there is no fault, such as cracking hair ends like [in the case of being based on an edged tool].

[0004]

[Problem(s) to be Solved by the Invention]However, a hair cutting treatment device given in ** former, i.e., JP,H4- 37521,Y, Between both the ctenidium boards of the main part of a treater, the heater cassette which stretches a heater wire between conducting terminals was formed so that extraction and insertion was possible, and sake, there was a problem of being easy to produce the loose connection of conducting terminals and the power supply terminal by the side of a power supply. moreover -- in order to make attachment and detachment of a heater cassette easy, it is necessary to provide guide ** which engages with a ctenidium board and a heater cassette mutually, therefore a heater cassette becomes large, and a ctenidium part becomes large -- fine hair processing -- butter fish -- ** -- there was flume *****. Since it was what only stretches a heater wire between conducting terminals, the heater wire which generated heat by energization expanded, slack arose, and there was also a problem that hair could not be cut smoothly. In a hair cutting treatment device given in ** latter, i.e., JP,H8- 28981 4,A, Since a hauling means to always give hauling power to the heater wire of a heater cartridge in the state where the main part of a hair treater or the head was equipped with the heater cartridge which stretches a heater wire between electrode members is provided, Although the heater wire which generated heat by energization does not necessarily slacken by thermal

expansion, since the hauling means is formed by the coil spring over which one side, the main part of a hair treater, or head of an electrode member which stretches a heater wire is built, Part mark increased, and the assembly became troublesome and there was a problem that exchange when a heater wire is cut or damaged was troublesome.

[0005]It is more convenient to tell a user about the consuming conditions of the energization condition of a heater wire, a cell, etc. at the time of use. Although the one more convenient to carry of this kind of hair cutting treatment device is good, the ctenidium board of a ctenidium part is wanted to enable it to prevent contacted and damaging outside at the time of carrying. It is necessary to provide the means of preventing the piece for energization of a heater wire of a switch from being carelessly turned on at the time of carrying.

[0006]This invention was made in view of the above-mentioned situation, lessens members forming, and always gives tension to a heater wire. And set it as the 1st purpose to make attachment of a heater wire easy, and it sets it as the 2nd purpose to enable the display of the energization condition and the electric consuming conditions of a heater wire at the time of use correctly. The hair cutting treatment device which sets it as the 3rd purpose to prevent protection of the ctenidium part at the time of carrying and unprepared operation of the piece of a switch is provided.

[0007]

[Means for Solving the Problem]To achieve the above objects, a hair cutting treatment device of this invention is constituted as follows.

[0008]In a hair cutting treatment device possessing a ctenidium part which has a ctenidium board of a couple which the invention according to claim 1 sets an interval, and confronts each other, and a heater wire which it is allocated between ctenidium boards of the above-mentioned ctenidium part, and contacts ***** hair and is burned off between ctenidiums. Bind the 1st electrode piece that binds one end of the above-mentioned heater wire, and the other end of the above-mentioned heater wire, and. Equip this heater wire with the 2nd electrode piece that has the elasticity which energizes tension, and the 1st and 2nd electrode pieces of the above, and. A heater wire unit which consists of a supporter which allocates a connecting end section of the 2nd electrode piece of the above near the periphery of a mounting hole is provided. With a mounting screw which penetrates a mounting hole of the above-mentioned heater wire unit, this heater wire unit is formed in the above-mentioned ctenidium part so that attachment is possible, and the 1st and 2nd electrode pieces of the above are formed so that connection with an electrode terminal for electric supply is possible.

[0009]The invention according to claim 2 equips with the following a hair cutting treatment device possessing a ctenidium part which has a ctenidium board of a couple which sets an interval and confronts each other, and a heater wire which it is allocated between ctenidium boards of the above-mentioned ctenidium part, and contacts ***** hair and is burned off between ctenidiums.

The 1st electrode piece that binds an end of the above-mentioned heater wire.

The 2nd electrode piece that the other end of the above-mentioned heater wire is bound, and has the elasticity which energizes tension to this heater wire.

A heater wire unit which it equips with the 1st and 2nd electrode pieces of the above, and consists of a supporter which allocates a connecting end section of the 2nd electrode piece of the above near the periphery of a mounting hole. A light-emitting display means which consists of a light emitting device which emits light by energization of the above-mentioned heater wire, and an element for a display [exhausting] which is connected to an electric circuit of this light emitting device in series, and controls voltage to a light emitting device.

[0010]In the hair cutting treatment device according to claim 1 or 2 the invention according to claim 3, A piece of a switch with which the above-mentioned ctenidium part is equipped collapsibly and which energizes - intercepts the above-mentioned heater wire, a wrap cap is provided for the above-mentioned ctenidium part -- an opening which carries out the insertion guide of the above-mentioned piece of a switch to the above-mentioned cap is provided -- a notch for malfunction prevention which leaves an apical surface center section of the above-mentioned piece of a switch, and engages with a verge-of-opening part of the above-mentioned cap at both sides is provided

[0011]In this invention, the 2nd electrode piece of the above binds the other end of the above-mentioned heater wire, and. If allocated near the periphery of a mounting hole which has the elasticity which energizes tension to this heater wire and where a connecting end section was established in a

supporter, The gestalt may be arbitrary, for example, can be formed with a wire spring which has a hooking portion which binds a heater wire, a bending part located in a periphery of a mounting hole of a supporter, and a coil part for energizing spring nature attached to a fitting part which protrudes on a supporter.

[0012] Since the 2nd electrode piece can make a tension energizing means of polar zone and a heater wire serve a double purpose according to the invention according to claim 1, reduction of members forming can be aimed at, and attachment of a heater wire can be made easy. The 1st and 2nd electrode pieces are certainly connectable with an electrode terminal for electric supply of a ctenidium part by attaching to a ctenidium part a mounting screw which penetrates a mounting hole of a heater wire unit. An energization condition of a heater wire can be investigated before an assembly by connecting a tester electrode terminal between connecting end sections of the 1st electrode piece of a heater wire unit, and the 2nd electrode piece.

[0013] Since a light-emitting display means which consists of a light emitting device which emits light by energization of a heater wire, and an element for a display [exhausting] which is connected to an electric circuit of this light emitting device in series, and controls voltage to a light emitting device is provided according to the invention according to claim 2, In addition to the invention according to claim 1, a user can be told about condition of use of a hair cutting treatment device, and electric consuming conditions.

[0014] A piece of a switch with which a ctenidium part is equipped collapsibly and which according to the invention according to claim 3 energizes - intercepts a heater wire, By providing a wrap cap for a ctenidium part, providing an opening which carries out the insertion guide of the piece of a switch to a cap, and providing a notch for malfunction prevention which leaves an apical surface center section of the piece of a switch, and engages with an opening of a cap at both sides, A ctenidium part can be protected with a cap and a piece of a switch can be prevented from malfunctioning at the time of carrying.

[0015]

[Embodiment of the Invention] Below, the embodiment of this invention is described in detail based on Drawings. The perspective view and drawing 2 which drawing 1 shows an example of the hair cutting treatment device of this invention are that exploded perspective view.

[0016] The tubed main part 10 of a treater in which the above-mentioned hair cutting treatment device accommodates the cell (not shown) which is a power supply for electric supply, The ctenidium part 20 which consists of the ctenidium boards 21 and 22 of a couple which set the proper interval attached to the tip part of this main part 10 of a treater, and confront each other, The heater wire unit 30 which stretches the heater wire 31 allocated by a ctenidium and orthogonal shape between the ctenidium boards 21 and 22 of the ctenidium part 20, Where the light-emitting display means 40 exposed to the upper part of the ctenidium part 20, one of energization-interception of the heater wire 31 and the piece 50 of a switch for turn off operations, and this piece 50 of a switch are exposed, the wrap cap 60 mainly constitutes the ctenidium part 20 and the light-emitting display means 40.

[0017] The above-mentioned main part 10 of a treater is formed in the shape of [which has an opening which accommodates the cell which is not illustrated] a cylinder like object with base, The switch-plate spring 11 of a cell which has a terminal area linked to the anode (+) side protrudes on the pars-basilaris-ossis-occipitalis, i.e., ctenidium part at tip, side toward the method of outside with the switch setscrew 12, The battery lid 15 is attached to the opening side by for example, bayonet fitting removable via the cell board 13 linked to the negative pole (-) side of a cell, and the cell spring 14 which presses this cell board 13. Attachment of the seal 18 for a display is attained in the outside surface of this battery lid 15. One end connects with the cell board 13 into the main part 10 of a treater, and the grounded plate spring 16 as an electrode terminal for electric supply in which the other end projects toward the method of outside from the ctenidium part side is provided on the side.

[0018] The bearing part 17 of the couple which sets an interval and confronts each other protrudes on the apical surface of the main part 10 of a treater, and the convex shaft 51 which projects from the end both sides of the above-mentioned piece 50 of a switch in this bearing part 17 is supported movably pivotable. The piece 50 of a switch supported movably by the bearing part 17 pivotable, The free end section is collapsible and it engages with the upper surface of the above-mentioned switch-plate spring 11, and by resisting the resiliency of the switch-plate spring 11 and depressing, it is constituted so that the electrode plate 27 for electric supply which the switch-plate spring 11

mentions later can be contacted.

[0019]The ctenidium boards 21 and 22 which constitute the above-mentioned ctenidium part 20, The ctenidium 20b is formed in the tapered part 20a at a tip, and it is attached to the main part 10 of a treater with the setscrew 23 thrust into the screw-thread receiving part 20d provided inside the semicircular arc base 20c which stands in a row in the tapered part 20a out of the main part 10 of a treater. The flange 20e prolonged toward the ctenidium boards 21 and 22 which leave the opening window 25 for exposure of the notch 24 for insertion of the piece 50 of a switch and the light emitting device 41 of the light-emitting display means 40, and face is formed in the upper part of the ctenidium part 20. Inside one ctenidium board 21, 20f of mounting seats of the heater wire unit 30, 20g of supporting seats of the light emitting device 41, and 20h of retention seats of the diode 42 as an element for a display [exhausting] of the light-emitting display means 40 mentioned later are provided (refer to drawing 2 and drawing 3). In the surface of 20f of mounting seats, the terminal 27a of the electrode plate 27 for electric supply fixed to the apical surface of the main part 10 of a treater with the setscrew 26 is arranged in this case. This electrode plate 27 for electric supply is constituted so that the above-mentioned switch-plate spring 11 can contact.

[0020]On the other hand, as shown in drawing 2 thru/or drawing 4, the above-mentioned heater wire unit 30, The supporter 32 of the electric insulation which is formed in the shape of an abbreviated bow type, and has the mounting hole 32a in the center section, The 1st electrode piece 34 with which the end part of this supporter 32 is equipped with the terminal setscrew 33 and the nut 33a and that can contact the tip part of the above-mentioned grounded plate spring 16, The 2nd electrode piece 35 formed with the wire spring with which the fitting part 32b which protruded on the other end of the supporter 32 is equipped with the coil part 35a for energizing spring nature, One end is bound to the 1st electrode piece 34, and the other end is bound to the hooking portion 35b of the 2nd electrode piece 35, And the heater wires 31 by which tension is always energized are consisted of by the elastic force of the 2nd electrode piece 35, and the bending part 35c which stands in a row in the coil part 35a of the 2nd electrode piece 35 is arranged near the edge part of the mounting hole 32a. Therefore, since the heater wire 31 is stretched after tension has always been given by the resiliency of the 2nd electrode piece 35, even if the heater wire 31 generates heat and expands by energization, without slackening, tension works and is always stretched.

[0021]By screwing the mounting screw 36 which penetrates the mounting hole 32a to 20f of mounting seats in which it was provided by the ctenidium board 21 of the ctenidium part 20, the heater wire unit 30 constituted as mentioned above is attached to the ctenidium part 20, after the ctenidium 20b of the ctenidium board 21 and the heater wire 31 have crossed at right angles. In this state, the 1st electrode piece 34 connects with the grounded plate spring 16 which is an electrode terminal for electric supply by the side of the negative pole (-), and the bending part 35c of the 2nd electrode piece 35 is connected to the terminal 27a of the electrode plate 27 for electric supply by the side of the anode (+) arranged on the surface which is 20f of mounting seats. Therefore, the heater wire 31 can be changed into the state which can be energized simply and certainly by screwing the mounting screw 36 to 20f of mounting seats. The state of the heater wire 31 which can be energized can be tested before an assembly by connecting a tester's electrode terminal between the bending parts 35c of the 1st electrode piece 34 of the heater wire unit 30, and the 2nd electrode piece 35.

[0022]The opening 61 which it shows to the above-mentioned piece 50 of a switch is formed, and the above-mentioned cap 60 is constituted so that the ctenidium part 20 may be covered, where the piece 50 of a switch is guided into this opening 61. In this case, as shown in drawing 5, the notch 52 for malfunction inhibition which the piece 50 of a switch leaves an apical surface center section, and engages with the edge of the opening 61 of the cap 60 at both sides is formed. Therefore, the ctenidium part 20 can be protected by covering the ctenidium part 20 with the cap 60. When the edge of the opening 61 of the cap 60 engages with the notch 52 for malfunction inhibition of the piece 50 of a switch, the heater wire 31 can be prevented from the piece 50 of a switch being pushed in carelessly and energizing. By forming the edge of the opening 61 tapered shape or circularly in this case, and considering it as the shape which made the notch 52 for malfunction inhibition meet the edge shape of the opening 61, where only the piece 50 of a switch is exposed, the ctenidium part 20 can be equipped with the cap 60. A strong degree can give compared with the case where a notch is provided over the right and left of the apical surface of the piece 50 of a switch by leaving the apical surface center section of the piece 50 of a switch, and forming the notch 52 for malfunction inhibition in both sides,

and damage to piece of switch 50 tip parts can be prevented. that is, the center of the apical surface of the piece 50 of a switch -- ***** -- since a reinforcing rib can be formed in the notch 52 for malfunction inhibition by things, intensity can be given and the tip part of the piece 50 of a switch can be prevented from being damaged by the shock from the outside, etc.

[0023]In the electric circuit of the heater wire 31 connected to the power supply E by a cell in series on the other hand via the switch S which has the above-mentioned piece 50 of a switch as the above-mentioned light-emitting display means 40 is shown in drawing 3 and drawing 6. It comprises, the element 42 for a display [exhausting], for example, the diode, which are connected with the light emitting device 41 (LED) connected in parallel with the heater wire 31, and this light emitting device 41 in series, and control the voltage to the light emitting device 41. The two leads 41a of the light emitting device 41 are covered with the insulating tube 43.

[0024]Thus, while the heater wire 31 energizes and generating heat by the ON operation of the switch S by connecting the light emitting device 41 and the diode 42 in parallel with the heater wire 31, the light emitting device 41 emits light and an energization condition can be displayed. You can control the voltage of the power supply E, for example, 3V, to 2V by the diode 42, can make it impressed by the light emitting device 41, predetermined voltage can be made to be able to impress to the light emitting device 41, and the electrical breakdown by the high tension of the light emitting device 41 can be prevented. When the electrical and electric equipment flows into the diode 42 by generation of heat by continuous energization, the consuming conditions of a cell can be told by reducing the illumination of the light emitting device 41.

[0025]In order to use the hair cutting treatment device constituted as mentioned above, where the heater wire 31 between the ***** ctenidium boards 21 and 22 is contacted into the suitable length portion of hair by hair in the ctenidium part 20, ON operation of the piece 50 of a switch is carried out. Then, the heater wire 31 energizes, it generates heat, and the hair portion in contact with this heater wire 31 can be burned off easily. And unlike the case where edged tools, such as scissors and a razor, cut, the hair ends of the burned-off hair do not become acute, but it becomes that roundish, and there is no fault, such as cracking hair ends like [in the case of being based on an edged tool]. In the state where the heater wire 31 is energizing, the light emitting device 41 can emit light, a user can be told about an energization condition, and a user can be told about the consuming conditions of a cell by reducing the illumination of the light emitting device 41 by the diode 42. Therefore, the user can perform hair processing, checking the consuming conditions of a cell.

[0026]Although the above-mentioned embodiment explained the case where a power supply was a cell, the power supply does not necessarily need to be a cell and it may be made to use an external power. In this case, it may be made to make the converter which changes the voltage inputted from the connector area of an external power, or an external power in the main part 10 of a treater, current, or its both build in.

[0027]

[Effect of the Invention]Since the hair cutting treatment device of this invention is constituted as mentioned above as explained above, the following outstanding effects are acquired.

[0028]1) Since the 2nd electrode piece can make the tension energizing means of the polar zone and a heater wire serve a double purpose according to the invention given in Claim 1, reduction of members forming can be aimed at, and attachment of a heater wire can be made easy. The 1st and 2nd electrode pieces are certainly connectable with the electrode terminal for electric supply of a ctenidium part by attaching to a ctenidium part the mounting screw which penetrates the mounting hole of a heater wire unit. Since the energization condition of a heater wire can be investigated before an assembly by connecting a tester's electrode terminal between the connecting end sections of the 1st electrode piece of a heater wire unit, and the 2nd electrode piece, the inferior goods after an assembly can be lessened and improvement in a product yield can be aimed at.

[0029]2) Since the light-emitting display means which consists of a light emitting device which emits light by energization of a heater wire, and an element for a display [exhausting] which is connected to the electric circuit of this light emitting device in series, and controls the voltage to a light emitting device is provided according to the invention given in Claim 2, In addition to the above 1, a user can be told about the condition of use of a hair cutting treatment device, and electric consuming conditions.

[0030]3) By according to the invention given in Claim 3, providing the opening which carries out the insertion guide of the piece of a switch for a ctenidium part to a wrap cap, and providing the notch for

malfunction prevention which leaves the apical surface center section of the piece of a switch, and engages with the opening of a cap at both sides, A ctenidium part can be protected with a cap, and the piece of a switch can be prevented from malfunctioning at the time of carrying, and it can carry safely.

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DESCRIPTION OF DRAWINGS

[Brief Description of the Drawings]

[Drawing 1]It is a perspective view showing an example of the hair cutting treatment device of this invention.

[Drawing 2]It is an exploded perspective view of the above- mentioned hair cutting treatment device.

[Drawing 3]the mounting state of the heater wire unit in this invention and a light- emitting display means is shown -- it is a section perspective view in part.

[Drawing 4]It is a perspective view showing the above- mentioned heater wire unit and its mounting state.

[Drawing 5]It is a sectional view (c) which meets the sectional view (b) and the B- B line of (b) which meet the A- A line of a perspective view (a) and (a) which shows the engagement state of the cap in this invention, and the piece of a switch.

[Drawing 6]It is an electric diagram showing the connected state of the light emitting device which constitutes the light- emitting display means in this invention, and the display device for consumption.

[Description of Notations]

10 The main part of a treater

16 Grounded plate spring (electrode terminal for electric supply)

20 Ctenidium part

20 f Mounting seat

21 and 22 Ctenidium board

27 The electrode plate for electric supply

27a The electrode plate terminal for electric supply (electrode terminal for electric supply)

30 Heater wire unit

31 Heater wire

32 Supporter

32a Mounting hole

34 The 1st electrode piece

35 The 2nd electrode piece

35a Coil part

35b Hooking portion

35c Bending part

36 Mounting screw

40 Light- emitting display means

41 Light emitting device

42 Diode (element for a display [exhausting])

50 The piece of a switch

52 The notch for malfunction inhibition

60 Cap

61 Opening

[Translation done.]

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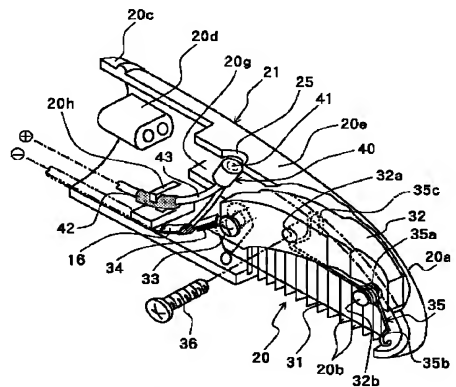
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(54) 【発明の名称】 体毛切断処理器



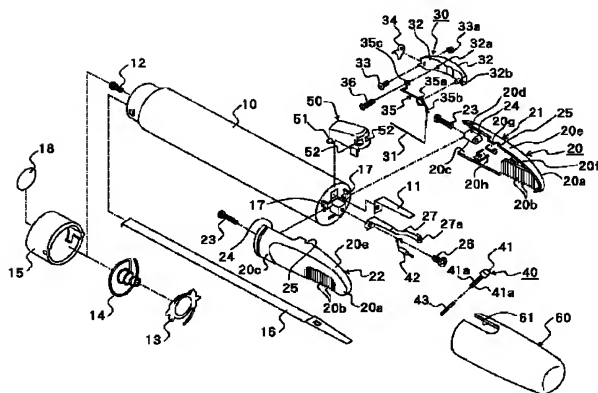
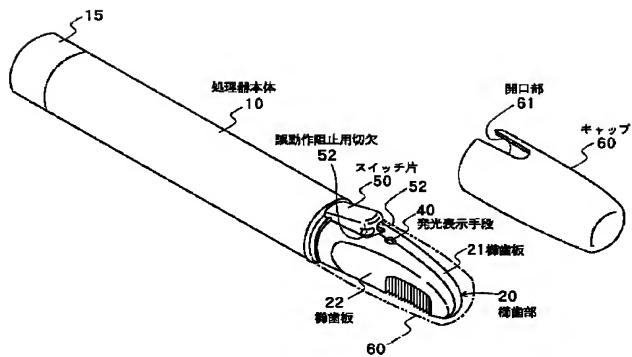
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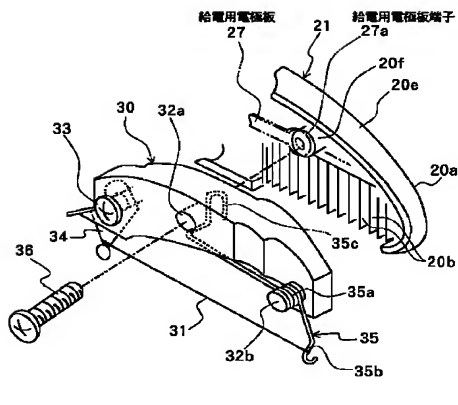
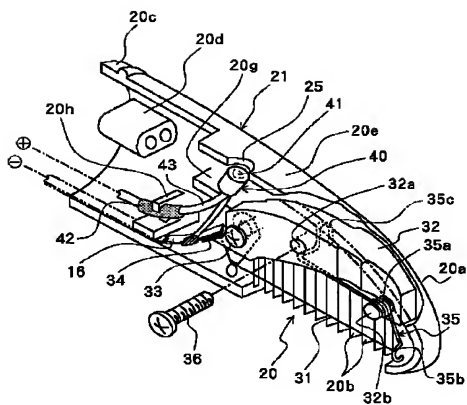
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|-----------------|-------------|
| 16 : フース板ばね | 34 : 第1の電極片 |
| 20 : 電極部 | 35 : 第2の電極片 |
| 21 : 電極板 | 35a : コイル部 |
| 30 : ヒータワイヤユニット | 35b : フック部 |
| 31 : ヒータワイヤ | 35c : 曲げ部 |
| 32 : 保持体 | 36 : 取付ねじ |
| 32e : 取付孔 | |

